

## 5.12 Public Utilities

This section discusses the availability of public utilities for the proposed UCSP area, including water, wastewater, waste, and energy.

The goals expressed in the UCSP require improvements to City utilities. Because the UCSP implements the GPU, the infrastructure studies performed during the City's GPU effort and resulting citywide utilities implementation strategies provide the basis of utilities and services needed for the urban core. Chapter IX of the UCSP focuses on the GPU infrastructure and public facilities policies and criteria that have particular relevance to the UCSP area. Chapter X of the UCSP identifies the implementation programs that will result in the desired improvements. Realization strategies include public and public/private partnerships to generate funding and investment in the urban core through development and business fees, redevelopment funds, grants, TransNet (a one-half cent tax for transportation projects), and the general fund as funding sources.

A Facilities Implementation Analysis is being prepared concurrent with the UCSP to evaluate ongoing, long-term improvement projects and determine whether long-term projects revenues are sufficiently aligned with long-term potential costs of public infrastructure. Monitoring of the progress of the UCSP in reaching its infrastructure and public facilities goals will include review under the Growth Management Ordinance, bi-annual review of amenities and facilities implementation in conjunction with the budget/CIP review cycle, and a five-year assessment of the progress of the UCSP. To monitor the effectiveness of the UCSP in responding to the changing landscape of the urban core, a Five-Year Progress Report will be prepared and included as part of budget cycle or strategic plan updates. Facing any change in priorities, additions or subtractions from the facilities program will not require amendment of the UCSP provided such changes are not in conflict with the this EIR.

The Growth Management Ordinance (Municipal Code 19.09) includes a program to implement the GPU and ensure that development does not occur unless facilities and improvements are available to support that development. The growth management program incorporates a defined public facilities development phasing policy to appropriately schedule the timing and location of various City improvements. The program additionally incorporates the facility master plans for fire protection, schools, libraries, parks, water, sewer, drainage, traffic and civic centers. The Growth Management Oversight Commission annually reviews and reports on the program to the Chula Vista Planning Commission and City Council.

The City Council adopted the original Threshold Standards Policy for Chula Vista in November 1987, which established "quality of life" indicators for water and sewer services and facilities. These topics were addressed in the policy in terms of a goal,

objective(s), threshold, and implementation measures. More recently, GPU Policy GM 1.1 calls for the City to maintain a set of quantitative level of service measures (growth management threshold standards) as a tool to assess the relative impact of new facility and service demands created by growth and apply those standards as appropriate to approval of discretionary projects. Policy GM 1.11 also establishes the authority to withhold discretionary approval for projects out of compliance with those standards.

In addition to the City's Growth Management Ordinance, the City collects development impacts fees and sewer capacity fees to fund and construct needed utilities. Municipal Code Chapter 3.50 requires the collection of public facilities development impacts fees (PFDIF) from new development within the City to fund and construct needed citywide improvements and ensure that adequate funds are available in the impact fee account to build them. The general intent of this ordinance is to require that adequate public facilities be available to accommodate increased population created by new development within the City. The City determined that new development contributes to the cumulative burden on existing public facilities, which must be mitigated by the financing and construction of new facilities. The City determined that a reasonable means of financing the public facilities is to charge a fee on all development in the City. The resulting fee schedule has been adopted in accordance with Government Code Section 66000 and future development projects will be subject to the payment of the fee at the rate in effect at the time building permits are issued.

### **5.12.1 Water**

The following discussion of water supply and water treatment facilities is based primarily on the *Water Supply Assessment for the UCSP* prepared by the Sweetwater Authority, June 2005. This report is attached to this EIR as Appendix F. Additional information was obtained from the Sweetwater Authority Urban Water Management Plan (UWMP, 2000) and Water Distribution Master Plan (2002) which are available for review at the City of Chula Vista Planning Department at 276 Fourth Avenue, the Chula Vista Civic Center Library at 365 F Street in the City of Chula Vista and on the City of Chula Vista website documents page at [www.ci.chula-vista.ca.us](http://www.ci.chula-vista.ca.us). Water quality issues are addressed in Chapter 5.7 of this EIR, Hydrology and Water Quality.

#### **5.12.1.1 Existing Conditions**

Water imported to the San Diego region comes from two primary sources, the Colorado River through the 240-mile Colorado River Aqueduct, and the State Water Project from Northern California through the Sacramento-San Joaquin River Delta and the 444-mile-long California Aqueduct. These sources deliver water to The Metropolitan Water District of Southern California (MWD), which then distributes water supplies to water agencies throughout the Southern California region including the San Diego County Water Authority (CWA). The CWA is comprised of 23 member agencies and receives

purchased water by gravity through two aqueducts containing five large-diameter pipelines. These pipelines then supply the three member water agencies which serve the City of Chula Vista. The Sweetwater Authority is the public water system for the area in which the City's UCSP is proposed.

Three water suppliers or districts serve water consumers within the City of Chula Vista. The Sweetwater Authority supplies the majority of the established western portion of the City, including the proposed UCSP. The Sweetwater Authority service area covers 36.5 square miles and contains approximately 33,928 service connections (Sweetwater Authority, WSA, 2005, p. 3). In addition, the system has emergency interconnections to three other water agencies. The Sweetwater Authority receives their water as a part of the Joint Powers Agency with the City of National City and the South Bay Irrigation District. They receive treated water from the CWA through Pipeline Number 4, and raw water from the CWA Pipeline Number 3, which is then treated at their own Perdue Water Treatment Plant. Additional sources of water are Sweetwater and Loveland Reservoirs, the Reynolds Demineralization Facility and the National City Wells. These "local" sources can at times of wet weather provide up to 100 percent of the needed annual demand.

The existing water demands for the UCSP Subdistricts Area are shown in Table 5.12-1. Summing the various water users within the UCSP area, the current total demand for water amounts to 1.96 million gallons per day (MGD).

**TABLE 5.12-1  
URBAN CORE SPECIFIC PLAN  
EXISTING WATER DEMANDS**

Description	Acres	Water Duty	Average Water Demand (MGD)
Residential	5,035 units	125.0 gpcd <sup>1</sup>	1.89
Commercial retail	192.39 acres	1.5 ac-ft/ac/yr	0.04
Commercial office	81.20 acres	1.5 ac-ft/ac/yr	0.01
Commercial visitor	8.30 acres	8.0 ac-ft/ac/yr	0.01
Civic	32.04 acres	2.0 ac-ft/ac/yr	0.01
Miscellaneous	20.49 acres	2.0 ac-ft/ac/yr	0.01
<b>TOTAL DEMAND</b>			<b>1.96</b>

SOURCE: Water Supply Assessment, City of Chula Vista UCSP, June 2005, Table 4.

NOTE: All totals are approximate and may include a combination of new infill.

<sup>1</sup>gallons per capita per day.

Water demands are met in the Sweetwater Authority service area by using water from various sources including local groundwater, a brackish groundwater desalination facility, surface water and water imported from the Colorado River and the State Water Project. The imported water is delivered by the SDCWA and then purchased by Sweetwater Authority. Since 1955, local sources have met 40.6 percent of the water needs within Sweetwater Authority service area while the 59.4 percent balance has been

met with imported water. The percentage of local to imported water varies greatly with time due to local rainfall amounts. Within the total Sweetwater Authority service area, existing annual water demands total 23,501 acre-feet per year (Sweetwater Authority, WSA, p.7).

### **a. Applicable Plans and Policies**

#### ***Water Code***

SB 610 and SB 221, approved October 9, 2001, addressed the provision of water as specified in Water Code Section 10912. Both of these bills place water supply requirements on individual projects, and require consideration of whether there is an adequate supply of water to support the project. SB 610 requires that a water supply assessment be included in the environmental review for projects specified in Water Code Section 10912. These include, among others, residential projects of more than 500 units, shopping centers of more than 500,000 square feet, and industrial facilities having more than 650,000 square feet of floor area.

SB 221 requires the City to verify that there is a sufficient water supply as a condition of approval of residential subdivisions of 500 or more dwelling units. Proof of a sufficient water supply is based on a written verification from the appropriate water agency.

In accordance with these two bills, the Sweetwater Authority prepared a Water Supply Assessment (WSA) in June 2005 that assessed water demand and water supply for the UCSP. This assessment is discussed further in the Impacts Analysis section below.

#### ***Sweetwater Authority Urban Water Management Plan 2000***

In accordance with Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act, Sweetwater Authority prepares a UWMP every five years. The Act requires urban water suppliers to file plans with the California Department of Water Resources (DWR) describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities.

The *Sweetwater Authority Urban Water Management Plan 2000* (UWMP) assesses the Authority's water demands, conservation and public affairs program, water supply and management, water pricing and rate structures, and drought and emergency management through 2020. The UWMP identifies the following existing sources of water for the Authority: National City Wells #2 and #3 which draw from the San Diego Formation aquifer from wells in the eastern portion of the City; Richard A. Reynolds Desalination Facility which treats brackish water drawn from groundwater; and the Sweetwater and Loveland Reservoirs, which capture runoff during periods of wet weather and are also utilized to store water imported from the CWA. Imported water from the CWA comprises the largest contributor to local water deliveries.

The UWMP states that because there are no recycled water transmission mains in the Authority's service area, the capital costs provide recycled water is prohibitively high; however, the UWMP states that the Authority will continue to work with the local agencies to review potential recycled water projects within their service area.

As required by law, Sweetwater's UWMP includes projected water supplies required to meet future demands. The UWMP concludes that if projected imported and local supplies are available as indicated, no shortages are anticipated within the Authority's service area in an average/normal year through 2020 and in the dry year scenarios analyzed in the UWMP. The UWMP acknowledges that during drought conditions, even with the Authority's reliance on imported water being reduced and the ability to store water in times of drought, there is always vulnerability when relying on an external source to provide water supply. The UWMP states that the Authority plans to continue implementation of conservation measures as referenced in the Authority's 2000 urban water conservation best management practices report, which is contained in the UWMP.

The adopted 2000 UWMP did not account for water demands associated with the City's GPU, and by extension, the proposed UCSP. Therefore, the 2005 WSA, which is discussed in 5.12.1.3 below, included in its current projections, a discussion with regard to whether Sweetwater's total projected water supplies will meet the projected water demand associated with the proposed UCSPS, in addition to existing and UWMP planned future uses.

### ***Sweetwater Authority Water Distribution System Master Plan 2002***

The *Sweetwater Authority Water Distribution System Master Plan 2002* (Master Plan) updated the 1979 and 1989 Water System Master Plans and the 1993 Water System Master Plan Update and addresses a comprehensive evaluation of the transmission, distribution, storage, pumping system, and water main life expectancy. The Master Plan identifies \$23 million of remaining improvements to meet current standards and \$30.6 million for continued effort to remove the older metallic pipelines within the Authority's system. In addition, the Master Plan identifies other essential improvements that were not identified in the previous master plans, estimated to cost \$4 million. The Master Plan also addresses the replacement of the system's newer pipelines due to life expectancy. Based upon a life expectancy of 100 years for new pipelines (previous material life was 50-60 years), it was concluded that the Authority needs to escalate the replacement program to four miles per year from the then current two miles per year at a cost of almost \$4 million per year compared to the then current cost of \$1.8 million. The Master Plan also acknowledges that the Authority is also faced with the ever-changing requirements and escalating costs to treat water at its three sources of supply.

The conclusions and recommendations of the Master Plan include the following: (1) based upon the projected service area maximum day demand of 35.4 million gallons per day (mgd) in 2020, no expansion of the Perdue Plant is recommended, unless

arrangements with neighboring water agencies requesting alternative sources of supply are executed; (2) construct remaining water storage tanks to comply with storage requirements based on maximum day plus fire flow demand for each individual system without added system redundancy; (3) the Authority should continue to prepare a new Water Distribution System Master Plan every ten years, and an interim Master Plan Update every five years; (4) the Authority's comprehensive pipeline replacement and rehabilitation program should be continued until all aging and leaking water mains are replaced; (5) eliminate nitrification and low disinfectant levels by strategically placing chemical injection points at selected water storage tanks; (6) further economic analysis on pipeline replacement due to life expectancy is needed in order to plan for future budgets; and (7) continue with a minimum of \$3.5 million annually (escalated for inflation) for Master Plan and metallic pipeline replacement projects.

Similar to the adopted UWMP, the 2002 Master Plan projections did not account for water demands associated with the City's 2005 GPU, and by extension, the proposed UCSP. The WSA, which was prepared to satisfy SB 610 and SB 221 and provide verification of sufficient water supply, recalculated service area projections to include the UCSP. The WSA is discussed below in 5.12.1.3.

### ***Chula Vista Growth Management Ordinance /Water Conservation Plan***

The City of Chula Vista Growth Management Ordinance, Municipal Code Section 19.09.050C, requires the preparation of a Water Conservation Plan (WCP) for all major development projects with water demand equal to that of a residential project of 50 or more dwelling units. The WCP Guidelines specify that commercial projects of 12 or more acres have a water demand equivalency equal to that of 50 dwelling units.

The WCP must provide an analysis of water usage requirements of the proposed project, in addition to a detailed plan of proposed water conservation measures, use of recycled water, and other means of reducing water consumption within the project as well as defining a program to monitor compliance. Developers choose from a menu of indoor and outdoor water conservation measures.

#### **5.12.1.2 Criteria for Determination of Significance**

The proposed UCSP would result in a significant impact to water supply and distribution if it would:

- Criterion 1: Result in insufficient supplies of potable water to meet the potential demands represented by the implementation of projects completed in conformance to the UCSP.

- Criterion 2: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

### 5.12.1.3 Impacts

#### a. Water Supply

- **Criterion 1: Result in insufficient supplies of potable water to meet the potential demands represented by the implementation of projects completed in conformance to the UCSP.**

Potable water in the western portion of the city of Chula Vista is supplied by the Sweetwater Authority. The Sweetwater Authority receives their water as a part of the Joint Powers Agency with the City of National City and the South Bay Irrigation District. They receive treated water from the SDCWA through Pipeline Number 4, and raw water from the SDCWA Pipeline Number 3, which is then treated at their own Perdue Water Treatment Plant. Additional sources of water are Sweetwater and Loveland Reservoirs, the Reynolds Desalination Facility and the National City Wells. These “local” sources can at times of wet weather provide up to 100 percent of the needed annual demand.

Sweetwater prepared a Water Supply Assessment (WSA, June 2005) which assessed average water demand and water supply for the UCSP, and pursuant to SB610 and SB 221, verified that there is a sufficient supply of water available to serve the projected needs of the proposed UCSP. Sweetwater has not prepared any previous water supply assessments that consider the future demands associated with the City's UCSP. Therefore, these demands have not been specifically included in any SDCWA or MWD planning document. In the March 2003 Report, MWD identified a potential reserve or system replenishment supply that can also be used to meet demands in cases where the identified growth had not been included in the SANDAG regional growth forecast. It is intended that the additional demand associated with buildout of the UCSP will be met through purchase of imported water from MWD's reserve supply.

The Water Supply Assessment estimated that at buildout of the UCSP the average water demand within the UCSP would be 3.54 mgd (Sweetwater Authority, WSA, 2005, p. 6). It further indicates that there will be sufficient water supplies to meet the projected demands of buildout of the UCSP and the existing and planned development projects within Sweetwater's service area in both normal and dry year forecasts. An adequate supply is further confirmed by MWD's March 2003 Report, which identifies reserve supply and states that MWD will have adequate supplies to meet dry-year demands within its service area over the next 25 years.

Sweetwater, MWD, and the SDCWA are implementing plans that include projects and programs to help ensure that the existing and planned water users within Sweetwater's

service area have an adequate supply. Projects include expansion of the Reynolds Desalination Facility from a capacity of 4 mgd to 8 mgd plus five new production deep wells by 2008. Table 5.12-2 shows the annual forecasted water demands compared with projected supplies within Sweetwater's service area, including the proposed UCSP. This demonstrates that with implementation of the existing and planned development projects within Sweetwater's service area there will be adequate water supplies to serve the UCSP along with existing and future uses. Matching supply and demand quantities in Table 5.12-2 reflect the Authority's protocol of supplementing local supply with purchases of imported water in volumes sufficient to meet projected demand, beyond what can be supplied locally.

**TABLE 5.12-2**  
**PROJECTED WATER SUPPLY AND DEMAND**  
**DURING NORMAL YEAR FOR PERIOD 2005 TO 2030**  
**(acre-feet per year)**

Supply Source	Year					
	2005	2010	2015	2020	2025	2030
Imported Water	10,963	9,794	10,394	10,913	11,454	11,998
Sweetwater Reservoir	8,375	7,700	7,700	7,700	7,700	7,700
National City Wells	1,979	2,400	2,400	2,400	2,400	2,400
Reynolds Desalination	2,184	7,200	7,200	7,200	7,200	7,200
Total Available Supply	23,501	27,094	27,694	28,213	28,754	29,298
Total Projected Demand	23,501	27,094	27,694	28,213	28,754	29,298

SOURCE: Sweetwater Authority, WSA, 2005, Table 6, p.7.

The WSA Report demonstrates and verifies that with development of the resources identified, there will be sufficient water supplies to meet the projected demands of the proposed UCSP and the existing and planned development projects within Sweetwater Authority's service area.

The findings of the WSA verify that there is a sufficient water supply to serve the proposed UCSP. Since there will be adequate water supplies to serve the UCSP along with existing and future uses, no significant water supply impacts will result from adoption of the UCSP.

## **b. Water Treatment**

- **Criterion 2: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

Buildout of the UCSP would place demands on the water supply system, both in the need to provide adequate supply, as discussed above, and in the need to improve and develop water treatment and distribution facilities. The UCSP proposes to increase development potential which may require corresponding improvements to treatment and distribution facilities. However, the Sweetwater Authority, in its WSA (discussed above)



verified the supply of future water to the UCSP given planned construction of five deep production wells and expansion of the Reynolds desalination facility. The Sweetwater Authority has a capital improvement program for completion of these required infrastructure improvements, and is responsible for assessing specific potential environmental impacts that might arise from their construction. Significant impacts could occur as a result of the construction of capital improvement projects needed to supply treated water to the UCSP. Analysis of the physical changes that might occur from these future water treatment construction projects would be too speculative at this time and is thus not required, pursuant to CEQA Guidelines Section 15145. Construction of new water treatment facilities would, however, be subject to independent environmental analysis pursuant to CEQA at the time the new facility is planned for construction.

#### **5.12.1.4 Level of Significance Prior to Mitigation**

Sweetwater has indicated in its 2005 Water Supply Assessment for the UCSP that it has sufficient water supplies to meet the estimated average demand for the Subdistricts Area of 3.54 mgd at buildout of the UCSP. Since there will be adequate water supplies to serve the UCSP along with existing and future uses, no significant water supply impacts will result from adoption of the UCSP.

Buildout of the UCSP would place demands on the water supply system which would require improvements to treatment and distribution facilities. There is the potential for a significant impact to occur as a result of the completion of these projects. Pursuant to Section 15145 of CEQA, analysis of the physical changes which might occur from a future water improvement project would be too speculative and further analysis is not required in this EIR. Construction of new water supply facilities would, however, be subject to independent environmental analysis pursuant to CEQA at the time the new facility is planned for construction.

#### **5.12.1.5 Mitigation Measures**

No mitigation measures are required.

#### **5.12.1.6 Summary of Significance After Mitigation**

No significant water supply impacts were identified.

### **5.12.2 Wastewater**

The following analysis of wastewater impacts is summarized from the *Wastewater Master Plan for the City of Chula Vista* prepared by PBS&J in May 2005. The report is hereby incorporated into this EIR by reference, and available for review in its entirety at the City of Chula Vista Planning Department at 276 Fourth Avenue, the Chula Vista Civic

Center Library at 365 F Street in the City of Chula Vista and on the City of Chula Vista website documents page at [www.ci.chula-vista.ca.us](http://www.ci.chula-vista.ca.us) as Appendix I to the GPU EIR.

### **5.12.2.1 Existing Conditions**

The City's Wastewater Master Plan (WMP) was completed in May 2005 and addressed wastewater issues relating to the City's long-range land use plan as determined through the GPU process. The WMP also identified facility improvements needed to sustain development through buildout of the City in accordance with the GPU.

Chula Vista relies on the City of San Diego Metro Sewage System for treating and disposing of wastewater generated within the City. The Metropolitan Wastewater Department (Metro) adopted the Metropolitan Wastewater Master Plan in November 2003, which identifies future treatment facilities needed to meet anticipated demands within the Metro service area.

The City of Chula Vista currently operates and maintains a citywide sanitary sewer collection system consisting of approximately 430 miles of sewer pipelines ranging in size from 6 inches to 48 inches in diameter. It also includes an extensive network of manholes, metering stations, and pump stations. In addition to maintaining the existing systems and replacing outdated or damaged components the City must also address upgrading and expanding the current systems to accommodate new sewer connections. Existing facility data is summarized in Table 5.12-3.

#### **a. System Capacity**

The major trunk lines in the collection system on the western portion of the City, including the UCSP, are mostly adequate. The City has budgeted four Capital Improvement Program projects to address existing constraints in that portion of the collection system. These projects are currently in the design phase and should be completed within the next two years. With the completion of these improvements, no other major improvements will be required other than the annual maintenance projects.

At the regional level, the City of Chula Vista is part of the Metropolitan Wastewater District. The City entered into an agreement with the City of San Diego, and currently has purchased 19.843 mgd of capacity rights in the Metro Collection System. The City currently discharges approximately 17.5 mgd into the Metro Interceptor (PBS&J, WMP, 2005, p. E-4).

#### **b. Sewer Basins**

The City of Chula Vista's wastewater collection system consists of eight major sewer basins: Sweetwater, G Street, Telegraph Canyon, Main Street and Date/Faivre, Bay

**TABLE 5.12-3  
EXISTING CITYWIDE WASTEWATER FACILITY DATA**

Type of Facility	Quantity
6-inch Pipe	8.56 miles
8-inch pipe	286.54 miles
10-inch pipe	13.22 miles
12-inch pipe	17.77 miles
14-inch pipe	0.62 miles
15-inch pipe	13.64 miles
18-inch pipe	6.30 miles
20-inch pipe	0.12 miles
21-inch pipe	1.46 miles
24-inch pipe	0.20 miles
30-inch pipe	0.13 miles
36-inch pipe	1.6 miles
42-inch pipe	4.4 miles
48-inch pipe	1.78 miles
Other pipe	16.70 miles
Manholes	7,635
Drop Manholes	4
Manhole Dead-end/Cap-ends	552
Manhole Clean-outs	138
Force Main Clean-outs	54
Other Manhole facilities (miscellaneous)	162
Metering Stations	12
Pump Lifts and Lift Stations	12
Commercial/Industrial Sewer Laterals	2,300
Residential (SF, MF, and Mobile Home) Sewer Laterals	53,700

Front, Salt Creek, Wolf Canyon Basin, and Poggi Canyon. Three of the eight major sewer basins are located within the UCSP and are described below:

### ***Sweetwater Sewer Basin***

Wastewater from the Sweetwater Sewer Basin, located in the northern portion of the city, gravity flows via pipelines into the Spring Valley Sewer Interceptor. This pipeline is owned and operated by the Spring Valley Sanitation District. The city of Chula Vista currently has capacity rights within this line. This pipeline terminates at a connection to the City of San Diego Metro Interceptor near Sea Vale Street. Based on recent flow metering data, Chula Vista discharges approximately 3.73 mgd of sewage into the Spring Valley Sewer Interceptor.

### ***G Street Sewer Basin***

Wastewater generated in the G Street Sewer Basin, located in the upper portion of central Chula Vista, is transported to the Metro Interceptor via the G Street Trunk Sewer. The G Street Trunk Sewer receives tributary sewage flows from the area bounded by D Street south to H Street. This trunk sewer terminates at a metered connection to the Metro Interceptor located on G Street just west of Bay Boulevard. Recent meter data indicate that approximately 2.3 mgd is being generated in this Basin.

### ***Telegraph Canyon Sewer Basin***

The Telegraph Canyon Sewer Basin serves lower central and eastern Chula Vista from H Street south to Naples Street, which includes the lower portion of the UCSP area. The Telegraph Canyon Trunk Sewer is located in J Street and Telegraph Canyon Road. The Telegraph Canyon Sewer Interceptor begins at the easterly end on Otay Lakes Road near Eastlake Drive and ends at a metered connection to the Metro Interceptor. Recent meter data indicate that approximately 6.17 mgd is being generated in this Basin.

## **5.12.2.2 Criteria for Determination of Significance**

The proposed project would have a significant impact on sewer service if:

- Criterion 1: Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.

### 5.12.2.3 Impacts

#### a. Wastewater Treatment Capacity

- **Criterion 1: Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.**

The following discussion of impacts to the City's wastewater collection system is based on the recently updated Wastewater Master Plan. This study covered the entire GPU area; however, because the acreages and intensities of land use are consistent with those identified in the GPU for the urban core area, the same conditions apply.

#### b. Collection System

The City of Chula Vista continually monitors and reviews both existing facilities and proposed projects to consistently meet current and anticipated demand. Current and planned improvements to the citywide wastewater collection system include a number of improvements that are needed to improve citywide conditions for wastewater collection. Four projects that are within or near the Subdistricts Areas include:

- Colorado Street between J Street and K Street
- G Street Pump Station Improvements
- Sewer Rehabilitation Projects
- Center Street between Fourth Avenue and Garrett Avenue

These wastewater improvements were identified as part of the Wastewater Master Plan Update, along with other recommended improvements.

Because of the general nature of planned land uses, an analysis of smaller sewer collectors is not possible. Such an analysis should be performed after more detailed building or redevelopment plans have been developed. Depending on the proposed land use changes, 8-inch diameter sewer lines serving new development in the northwest and southwest areas of the City may be impacted by the additional loading.

#### c. Metro Capacity

The City currently discharges approximately 17.5 mgd of sewage and has capacity rights in the Metro system (comprised of conveyance, treatment, and disposal facilities) equal to 19.843 mgd. At the time the agreement with Metro was signed, the 19.843 mgd capacity allocation seemed adequate to meet the City's needs for several years. Based

on the results of the analysis performed as part of the Wastewater Master Plan update, it is now estimated that by the year 2030, the City will be generating approximately 26.3 mgd of sewage (based on current data) at buildout under the GPU. Therefore, the City would need to acquire an additional 6.4 mgd of capacity rights by the year 2030 in order to meet projected demand. Of this citywide volume, 0.88 is calculated to be generated from the proposed UCSP (UCSP, Chapter IX, p. IX-4). This information has been conveyed to Metro in order to initiate the process of acquiring additional capacity and to assist Metro in the planning process.

Metro is in the process of completing the system capacity re-rating process to distribute additional capacity rights to participating agencies. This followed the completion of the South Bay Treatment Plant, which resulted in an additional 15 mgd treatment capacity to the Metro regional system. While the allocation process has not yet been finalized, the City of Chula Vista's share of the additional allocation is currently estimated at 1.027 mgd (which would bring the city's total capacity rights to 20.870 mgd). There is currently sufficient reserve capacity in the system to accommodate Chula Vista's current short-term needs requirements, as well as demands from other jurisdictions.

Additional capacity rights are allocated to each participating agency in proportion to their total Metro expenditure over a five year period (1996-2001). The exact amount would be determined upon completion of the audit process by City of San Diego staff. Furthermore, based on the technical analysis performed as part of the Wastewater Master Plan Update, there is sufficient capacity to serve the City until 2010. The City has already begun discussions with City of San Diego to identify a mechanism for the provision of additional capacity to the City of Chula Vista in accordance with the terms of the agreement between the City of San Diego, the City of Chula Vista and the other participating agencies. The primary focus at this time is the purchase or lease of additional capacity. Concurrent with that effort, staff is also exploring other options including the construction of a wastewater reclamation facility as an independently owned or joint facility (i.e. with a water agency) which will negate the need for the purchase of additional capacity rights.

#### **5.12.2.4 Level of Significance Prior to Mitigation**

Chula Vista owns capacity in the Metro system, which provides conveyance of city wastewater flows. Increasing population will place additional demand on sewer services. While it is the intent of the City to ensure that services are provided concurrent with need, the provision of sewer services is not solely within its authority. Although the City is in the process of acquiring additional capacity from Metro, that acquisition has not yet been finalized. As stated above, based on current projections, the City will be generating approximately 26.2 mgd of wastewater citywide, under buildout of the GPU. Therefore, the City would need to acquire additional 6.4 mgd of capacity rights by the year 2030 in order to meet citywide projected demand. Of this total, 1.57 mgd are projected to be

generated in western Chula Vista, including a projected generation of 0.88 mgd for the UCSP Subdistricts Area.

Therefore, impacts to the provision of sewer service are considered significant.

### **5.12.2.5 Mitigation Measures**

Development projects within the UCSP Subdistricts Area would require the approval of an Urban Core Development Permit established through the Design Review Process which would include the following mitigation measure to reduce wastewater impacts to below a level of significance:

- 5.12.2-1 Prior to the approval of subsequent individual development projects, project plans shall demonstrate that there is sufficient wastewater capacity available to serve the proposed project. Conditions of approval may require sewer capacity fees to be contributed to mitigate project-related impacts.

### **5.12.2.6 Level of Significance After Mitigation**

Implementation of mitigation measure 5.12.2-1 would reduce wastewater impacts to below a level of significance.

## **5.12.3 Integrated Waste Management**

### **5.12.3.1 Existing Conditions**

While control and siting of disposal sites falls under the jurisdiction of agencies other than Chula Vista, including the County of San Diego and State of California, the City has the ability to control waste production within the UCSP area. It is the goal of Chula Vista to take action appropriate to its population and resources to promote reductions in solid waste production and plan for adequate disposal.

Control of solid waste collection and disposal for the UCSP area fall under several jurisdictions. The San Diego County Solid Waste Division of the Department of Public Works administers regional planning and management for San Diego County's solid wastes. This agency is responsible for revising and updating the "Regional Solid Waste Management Plan" (RSWMP) which reviews current solid waste collection and disposal practices, predicts future waste generation trends and reviews the possible means for accommodating future collection and disposal needs. This document is the major planning tool for the County and includes solid waste planning for the cities within the County.

Enacted by Assembly Bill 939 and signed into law in 1990, the California Integrated Waste Management Act (IWMA) established an integrated system of solid waste management in the state whereby each city and county is required to develop and implement plans consistent with the mandated diversion rates of 25 percent by 1995 and 50 percent by 2000. Under IWMA, the county has prepared a Countywide Siting Element and Summary Plan describing areas to be developed as disposal or waste management facilities (PRC §41700). The Act further requires each city to prepare and implement the following solid waste management elements:

- Source Reduction and Recycling Element (SRRE) (PRC §41000) to:
  - Identify the constituents of solid waste by volume, type of material and source;
  - Describe the methods, including recycling and composting, by which the city will reduce the amount of solid waste being generated;
  - Identify and describe projected costs, revenues, and revenue sources necessary to implement the element; and
  - Describe existing handling and disposal practices for special wastes such as asbestos and sewage sludge.
- Household Hazardous Waste Element (PRC §41500) to identify a program for the safe collection, treatment, and disposal of hazardous wastes generated by residences that should be separated from the rest of the solid waste stream.
- Non-Disposal Facility Element (NDFE) (PRC §41730) to describe any new solid waste facilities and expansions of existing solid waste facilities needed to implement the jurisdiction's source reduction and recycling element. Facilities that will recover or recycle at least five percent of the total volume of materials they receive need not be included in the element.

In 2003, approximately 182,148 tons of solid waste generated in Chula Vista required landfill disposal (Hellman 2004). Existing solid waste disposal facilities in the area include the Otay Landfill and several recycling facilities in proximity to the landfill. The Otay Landfill accepts approximately 98 percent of the non-hazardous municipal waste collected in the City. The remaining two percent is delivered to the Sycamore and Miramar Landfills (Meacham 2003). The Otay Landfill is expected to be in operation until 2028 based upon current waste generation rates.

### **5.12.3.2 Criteria for Determination of Significance**

Pursuant to CEQA Guidelines Appendix G, the proposed UCSP would result in significant impacts to integrated waste management if it would:



- Criterion 1: Be served by landfills with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

### 5.12.3.3 Impacts

#### a. Landfill Capacity

- **Criterion 1: Be served by landfills with insufficient permitted capacity to accommodate the project's solid waste disposal needs.**

The UCSP Subdistricts Area would be served by the Otay Landfill, which has adequate capacity to accommodate waste generated by proposed project. The Otay Landfill currently accepts an average daily rate of disposal of 2,260 tons, with a permitted maximum disposal rate of 5,000 tons and has a permitted remaining capacity of 31,336,166 tons. The UCSP would generate an estimated net increase in population at buildout of approximately 18,318 people. Assuming the additional development at buildout of UCSP and no additional recycling programs are implemented, the Otay Landfill currently has sufficient capacity to accommodate the increased waste disposal demands from the proposed UCSP.

Beginning in 1997, the City of Chula Vista implemented a curbside recycling program that reduces the amount of waste reaching the landfill. Participation in the curbside recycling program is mandatory and has helped the City reach the 50 percent solid waste reduction goal established by Assembly Bill 939. The Solid Waste Local Enforcement Agency (LEA) is currently processing a revision to the permit for the landfill that modifies the closure date. Based on this information from the LEA, revisions to the permit will increase the maximum allowable daily disposal rate to 5,830 tons and therefore, the rate at which the available capacity is filled (McNeil, pers. com. 2005). While LEA is in the process of updating the permit for the landfill, this action has not yet been approved and is therefore considered too speculative. The current permitted capacity is thus the appropriate volume to consider.

The Otay Landfill has sufficient capacity to accommodate projected population at buildout of the UCSP and no significant impact to integrated waste management services would occur.

### 5.12.3.4 Level of Significance Prior to Mitigation

The UCSP area is served by the Otay Landfill. Using the average rate of daily disposal and assuming the additional population at buildout of the UCSP and no additional recycling programs are implemented, the Otay Landfill has sufficient capacity for approximately 25 years. Since there is sufficient capacity to accommodate projected population at buildout of the UCSP, there is no significant impact to integrated waste management services.

### **5.12.3.5 Mitigation Measures**

No mitigation measures are required.

### **5.12.3.6 Level of Significance After Mitigation**

No significant integrated waste management impacts were identified.

## **5.12.4 Energy**

### **5.12.4.1 Existing Conditions**

#### **a. Electricity**

San Diego Gas & Electric Company (SDG&E) is the owner and operator of electricity transmission, distribution, and natural gas distribution infrastructure in San Diego County. Power generation and power use are not linked geographically. In other words, power generated within Chula Vista is not dedicated to users in Chula Vista. Electricity generated is fed into the statewide grid and is generally available to any users statewide.

There is one major power plant in Chula Vista: the South Bay Power Plant. There are also two co-generation facilities in or near the city and a number of smaller generating plants in San Diego County that are used as backup during times of peak power demand.

#### **b. Natural Gas**

Natural gas imported into southern California originates from any of a series of major supply basins located from Canada to Texas. Although the San Diego region has access to all of these basins by interstate pipeline, the final delivery into the SDG&E system is dependent on just one Southern California Gas Company (SoCalGas) pipeline.

#### **c. Energy Use**

The discussion of energy use is presented in two main sections: fixed uses, such as homes and businesses, and mobile uses, primarily cars and trucks.

##### ***Fixed Uses***

Electricity consumption in the San Diego region varies greatly by sector (residential, commercial, industrial, and agriculture). In 1999, the City of Chula Vista consumed about 700 million kilowatt-hours (kWh) or \$62 million of electricity (City of Chula Vista 2001:45). As is the case for the San Diego region, the largest electricity consumption in

Chula Vista comes from commercial uses, followed by residential, industrial, and agriculture.

In 1999, about 150 million therms, or \$24 million of natural gas, were consumed in Chula Vista, approximately two-thirds of which was attributable to the South Bay Power Plant (City of Chula Vista 2001).

Natural gas consumption by sector varies somewhat each year. In general, power plants account for the highest percentage of natural gas consumption in the San Diego region. Residential consumption of natural gas is the second highest percentage, followed by cogeneration, commercial consumption, industrial consumption, and natural gas vehicles.

### ***Mobile Uses***

The primary mobile use of energy is motorized vehicle travel. Table 5.12-4 presents the 24-hour total vehicle miles of travel on a typical weekday. There were approximately 353.6 miles of roads in the city of Chula Vista in 2000. As Table 5.12-4 shows, approximately 3,223,000 miles were traveled on a typical weekday in the city in 2000. According to the U.S. Department of Energy's Energy Information Administration, the average fuel consumption for all motorized vehicles including passenger cars, vans, pickup trucks, sport utility vehicles, trucks, motorcycles, and buses was approximately 17 miles per gallon in 2000 (U.S. Department of Energy 2001). Using this average, motorized vehicles in Chula Vista consumed approximately 190,000 gallons daily in 2000.

**TABLE 5.12-4  
POPULATION TRAVEL AND FUEL USE 1995–2030 – CITY OF CHULA VISTA**

Year	1995	2000	2010	2020	2030
Population	149,791	174,319	244,332	269,529	282,664
Per Person VMT	18.49	18.49	18.49	18.49	18.49
Per Day VMT	2,769,000	3,223,000	4,517,000	4,984,000	5,226,000
Daily Gallons Used	163,000	190,000	266,000	293,000	307,000

SOURCE: SANDAG 2001; VMT = vehicle miles of travel.

Table 5.12-2 presents the estimated population, vehicle miles of travel (VMT), and vehicle fuel consumption in Chula Vista from 1995 to 2030, as calculated by SANDAG. Projected daily vehicle miles of travel for 1995, 2010, 2020, and 2030 are based on 2000 VMT. This mileage rate was then applied to population figures provided by SANDAG to calculate VMT in other years. An estimate for the amount of vehicle fuel used per day was calculated by dividing the daily VMT by the estimated fuel consumption rate of 17

miles per gallon. By using this estimate, it is assumed that the fuel consumption rate in the future will remain nearly the same as it was in the year 2000.

#### 5.12.4.2 Criteria for Determination of Significance

The proposed UCSP would result in a significant impact to energy if it would:

- Criterion 1: Result in the available supply of energy to fall below a level considered sufficient to meet the City's needs or cause a need for new and expanded facilities.

#### 5.12.4.3 Impacts

##### a. Energy Supply

- **Criterion 1: Result in the available supply of energy to fall below a level considered sufficient to meet the City's needs or cause a need for new and expanded facilities.**

Implementation of the proposed land uses identified in the UCSP has the potential to result in impacts to energy supply as a result of anticipated growth. Direct impacts could occur if, as a result of plan implementation, a substantial energy resource is reduced or eliminated, or if future demand outstrips available supply.

It is the intent of the UCSP to create pedestrian-friendly destinations in the urban core with a decreased focus on automobile travel. Although mobility in many forms is encouraged and needed throughout the Subdistricts Area the hierarchy of emphasis is pedestrian, bicycle, transit, and lastly the automobile. The UCSP additionally contains basic design principles and tools for designing and building sustainably "to minimize the use of energy, water and other natural resources" (UCSP Chapter VII Design Guidelines, Special Guidelines, Environmental Sustainability Goals). The City of Chula Vista participates in the LEED (Leadership in Energy and Environmental Design) Rating System and as stated in the UCSP "all newly constructed City-sponsored building in the Urban Core shall incorporate sufficient green building methods and techniques to qualify for the equivalent of LEED Silver." Private developments are also strongly encouraged to utilize green building practices through the support of City staff and through guidelines and incentives contained in the UCSP.

Because the proposed action is the adoption of a plan and does not specifically address any particular development project, impacts to energy resources can only be addressed generally, based on planned growth. Depending on the types of future uses, impacts may need to be addressed in greater detail at the time specific projects are proposed. Implementation of the energy policies contained in the adopted GPU that seek to reduce energy consumption by optimizing traffic flow, directing higher density housing within walking distance of transit facilities, promoting use of non-polluting and renewable

alternatives to vehicular travel and generally reducing vehicle trip length through improved community design will reduce effects based on demand, and are consistent with the City's Energy Strategy Action Plan.

The Energy Strategy Action Plan addresses demand side management, energy efficient and renewable energy outreach programs for businesses and residents, energy acquisition, power generation, and distributed energy resources and legislative actions (SDREO 2002). There are also a number of other plans, projects, and actions that have been developed by the City of Chula Vista to help reduce energy use and costs for the city and the community, including the CO<sub>2</sub> Reduction Plan.

Although these programs and policies will decrease the overall per capita energy use in the City, they do not insure that energy supplies will be available when needed. Because there is no assurance of a long-term supply of energy in the future, the increase projected energy demand results in a significant impact.

#### **5.12.4.4 Level of Significance Prior to Mitigation**

Impacts to energy are considered significant because there is no long-term assurance that energy supplies will be available at buildout of the UCSP. Avoidance of energy impacts cannot be assured regardless of land use designation or population size. Although changes to planned land uses in the city would continue to implement the Energy Strategy Action Plan, San Diego Regional Energy Plan and Transit First Plan, implementation of the proposed land uses identified in the UCSP has the potential to result in impacts to nonrenewable or slowly renewable energy resources as a result of anticipated growth.

#### **5.12.4.5 Mitigation Measures**

The following mitigation measure will lessen the extent of energy impacts that could result from the approval of the UCSP. Because conventional energy resources are slowly renewable or non-renewable, there is no long-term assurance that energy supplies will be available through buildout of the proposed project, regardless of land use designation or population size, avoidance of energy impacts cannot be assured and impacts remain significant.

##### **Mitigation Measure**

- 5.8-1 The City shall continue to implement the Energy Strategy and Action Plan, that addresses demand side management, energy efficient and renewable energy outreach programs for businesses and residents, energy acquisition, power generation, and distributed energy resources and legislative actions, and continuing implementation of the CO<sub>2</sub> Reduction Plan will lessen the impacts from energy.

#### **5.12.4.6 Level of Significance After Mitigation**

While implementation of the above mitigation measure reduces energy related impacts, because there is no assurance that energy resources will be available to adequately serve the projected increase in population resulting from adoption of the UCSP, the impact remains significant.

The environmental sustainability measures (described above) of the UCSP may serve to reduce energy consumption associated with construction and occupation of structures within the UCSP area.

## 5.13 Hazards/Risk of Upset

The following discussion is based on Ninyo & Moore's limited site reconnaissance and hazardous materials database queries conducted on January 25, 2003 as part of the GPU EIR (Section 5.15). This analysis covered the entire GPU area, including the Urban Core Subarea whose boundaries comprise that of the proposed UCSP Study Area. Because the acreages and intensities of land use proposed in the UCSP are consistent with those identified in the GPU for the urban core, the same conditions and conclusions apply. The findings of the analysis are summarized below. The analysis can be read in its entirety at the City of Chula Vista Planning Department at 276 Fourth Avenue, the Chula Vista Civic Center Library at 365 F Street, or online at the documents page of the City of Chula Vista website at [www.ci.chula-vista.ca.us](http://www.ci.chula-vista.ca.us) and is hereby incorporated by reference.

### 5.13.1 Existing Conditions

The UCSP area is currently developed with residential, retail, office, and civic uses. The types of businesses in the plan area that are likely to store hazardous substances and petroleum products or generate waste include the following: gasoline service stations, automobile repair facilities, dry cleaning facilities, chemical facilities, photograph developing facilities, and medical and dental facilities.

#### 5.13.1.1 Sites of Potential Environmental Concern

A computerized environmental information database search of the subject site and surrounding areas was performed by Ninyo and Moore through *Environmental FirstSearch*™ (*FirstSearch*). The *FirstSearch* included search of federal, state, and local databases. A summary of the environmental databases searched and number of noted sites of environmental concern is presented below. The raw database results, including addresses of reported sites, is not included in the City of Chula Vista GPU EIR but is available for viewing in the Hazardous Materials chapter of the Chula Vista Baseline Studies at the City of Chula Vista Planning Department, 276 Fourth Avenue. The databases identify locations of known hazardous waste sites, landfills, and leaking underground storage tanks, permitted facilities that utilize underground storage tanks, and facilities that use, store, or dispose of hazardous materials.

Note that some of the facilities listed on these databases and discussed below may be duplicate records (a duplicate record is defined as one or both of the following: (1) more than one facility is listed at the same street address on the same database; and/or (2) one facility is listed at the same address on the same database more than one time).

Figure 5.13-1 shows the combined results of the database search. As shown, the locations of sites of potential environmental concern are concentrated along the major commercial streets of Broadway, Third Avenue, and E Street. Figures 5.13-2 through 5.13-8 indicate approximate locations of properties that may pose environmental concerns per each respective database query.

#### **a. Multiple Agency, Leaking Underground Storage Tank (LUST) List**

The Leaking Underground Storage Tanks (LUST) Information System is maintained by the California State Water Resources Control Board, pursuant to Section 25295 of the Health and Safety Code. In addition, there are facilities in San Diego County that fall under the jurisdiction of the Local Oversight Program for unauthorized releases by the County of San Diego, Department of Environmental Health (DEH) (County LUST). 33 properties reported to be in the UCSP Subdistricts Area appear on the LUST list. Dozens more are mapped in close proximity. Refer to Figure 5.13-2 for the approximate locations of these properties.

#### **b. United States Environmental Protection Agency, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)**

The CERCLIS database contains properties that are either proposed for listing or listed on the National Priorities List (NPL), and properties that are in the screening and assessment phase for possible inclusion on the NPL. Properties identified by the USEPA that may have the potential for releasing hazardous substances into the environment are listed in this database. Two properties reported to be in the UCSP Subdistricts Area appear on the CERCLIS list. These properties are located just east of I-5 between E and F Streets as shown on Figure 5.13-3.

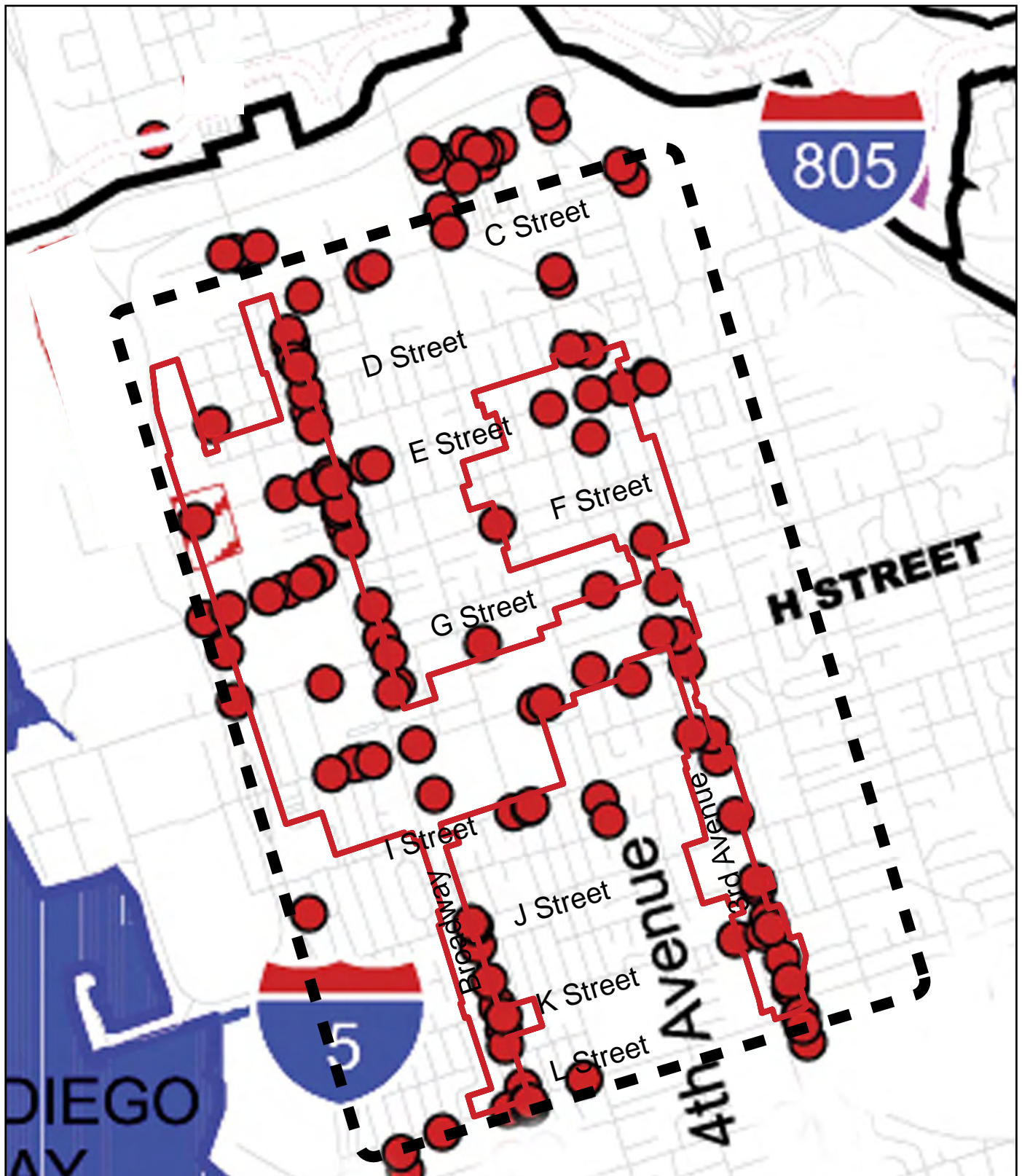
#### **c. United States Environmental Protection Agency, Emergency Response Notification System (ERNS)**

The ERNS is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities, including the USEPA, the United States Coast Guard, the National Response Center, and the Department of Transportation. The ERNS list contains records dating from October 1986. Eight properties reported to be in the UCSP Subdistricts Area appear on the ERNS list. Refer to Figure 5.13-4 for the approximate locations of these properties.

#### **d. State Water Resources Control Boards, SLIC (SPILLS) Lists**

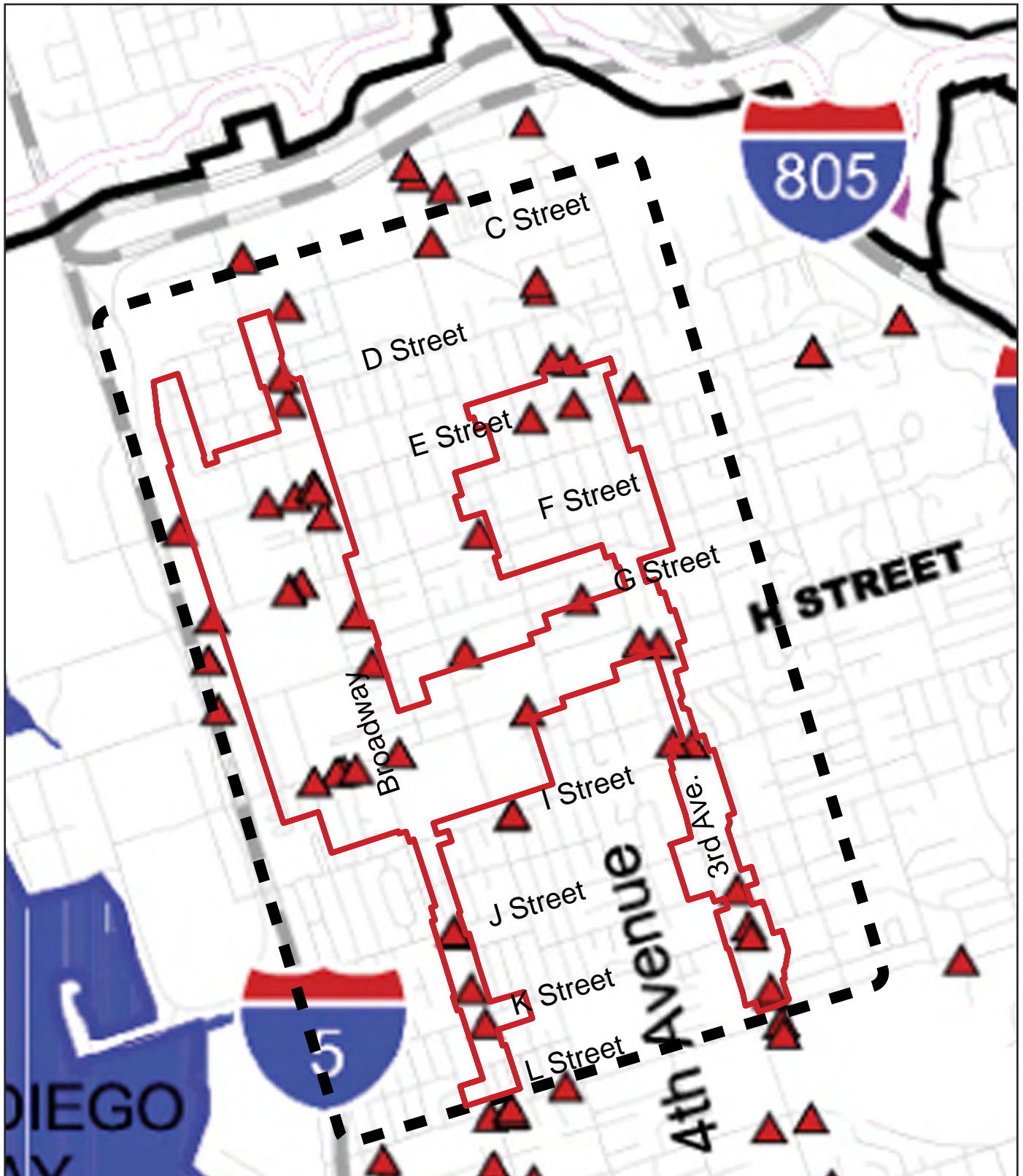
The state's nine Regional Water Quality Control Boards (RWQCBs) each maintain reports of sites that have records of spills, leaks, investigation, and cleanups for areas in





- Site of Potential Environmental Concern as Identified by an Environmental Database Search
- ▨ Landfill Site of Potential Environmental Concern as Identified by an Environmental Regulatory Agency
- - - - - USCP Study Area
- USCP Subdistricts Area

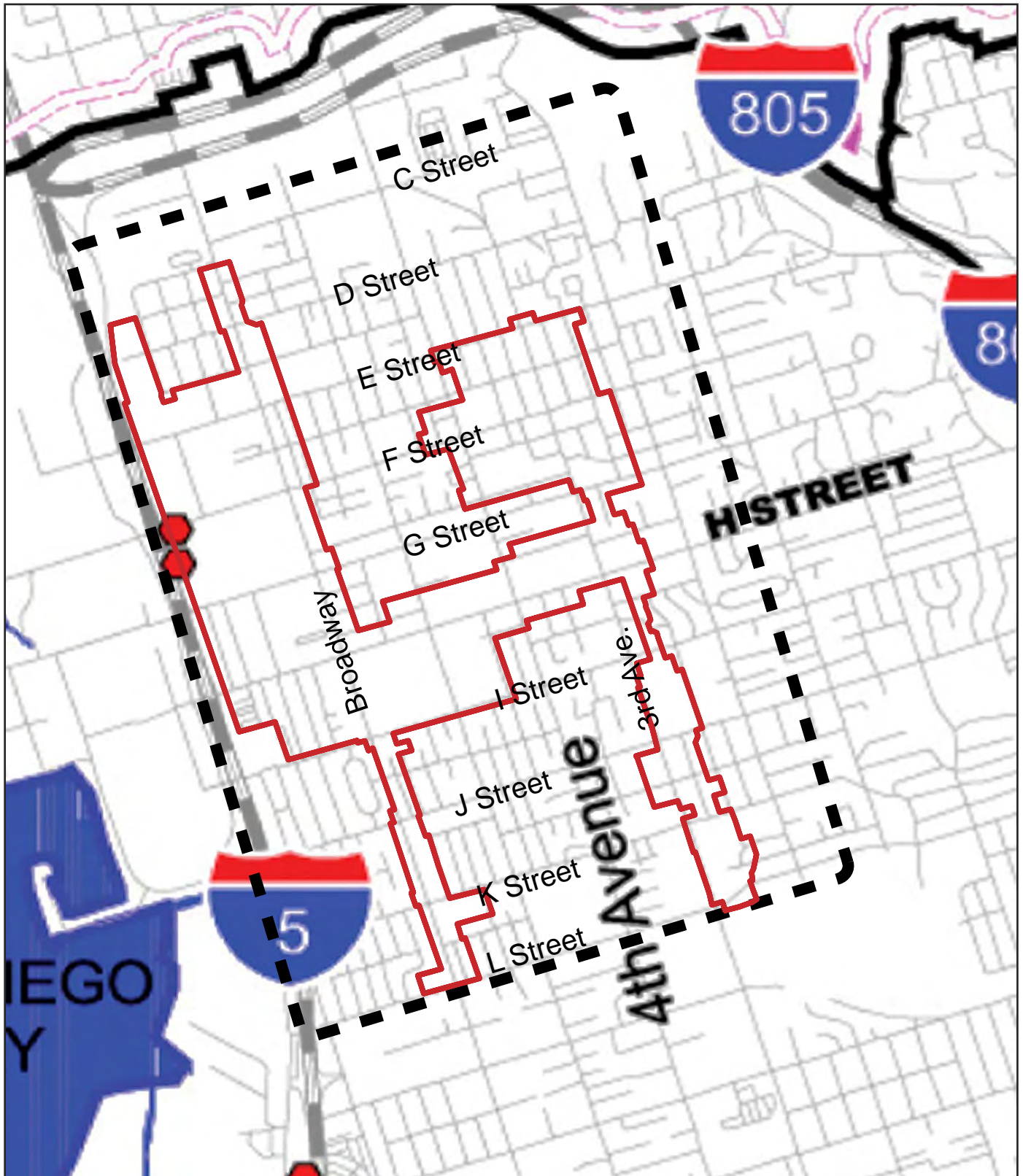
FIGURE 5.13-1  
Sites of Potential Environmental Concern  
within the UCSP Boundary



- ▲ LUST (Leaking Underground Storage Tank) Site of Potential Environmental Concern
- USCP Study Area
- USCP Subdistricts Area

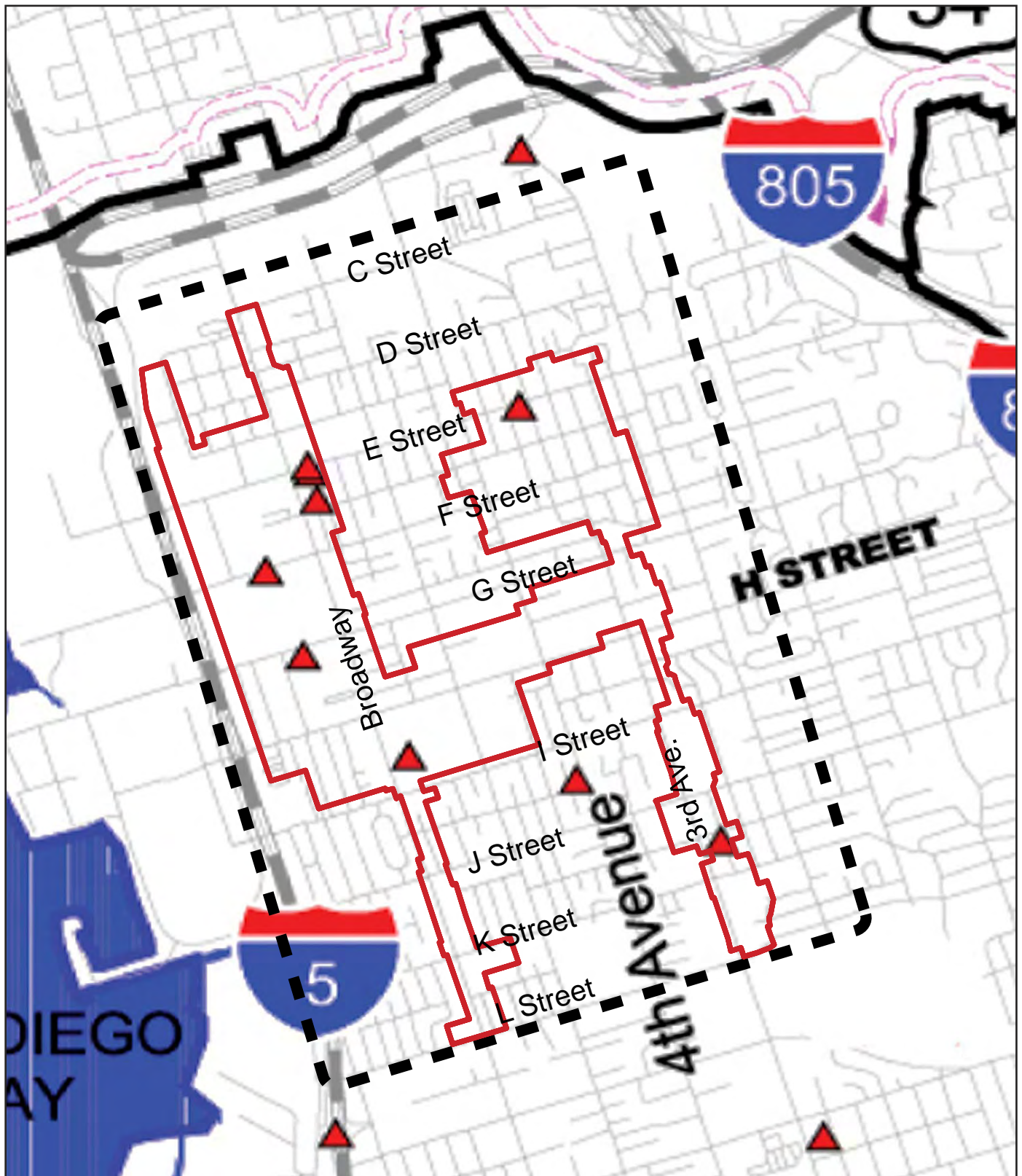
FIGURE 5.13-2  
Leaking Underground Storage Tank (LUST)  
Sites of Potential Environmental Concern





- CERCLIS (Comprehensive Environmental Response Compensation and Liability Information System) Site of Potential Environmental Concern
- - - - USCP Study Area
- USCP Subdistricts Area

FIGURE 5.13-3  
Compensation and Liability Information System (CERCLIS) List  
Sites of Potential Environmental Concern



- ▲ ERNS (Emergency Response Notification System) Site of Potential Environmental Concern
- USCP Study Area
- USCP Subdistricts Area

FIGURE 5.13-4

United States Environmental Protection Agency,  
Emergency Response Notification System (ERNS)  
Sites of Potential Environmental Concern

their jurisdictions. Three properties reported to be in the UCSP area appears on the RWQCB, Region 9 Spills, Leaks, Investigation and Cleanup (SLIC) (SPILLS) list. One or perhaps two of these properties lie within the Subdistricts Area, as mapping and address information locates the site according to the reported address and not the actual location of the spill or leak event. These three properties are located between E and G Streets, west of Broadway, near Interstate 5. Refer to Figure 5.13-5 for the approximate locations of these properties.

#### **e. United States Environmental Protection Agency, CORRACTS List**

The CORRACTS list identifies facilities that are undergoing “corrective action” subject to the Resource Conservation and Recovery Act (RCRA). A “corrective action order” is issued pursuant to RCRA when there has been a release of hazardous waste into the environment from a RCRA facility. Refer to Figure 5.13-6 for the locations of the approximately 34 properties in the UCSP Subdistricts Area that appear on the RCRA CORRACTS list.

#### **f. Department of Toxic Substances Control, State Sites (DTSC) List**

The California EPA Department of Toxic Substances Control (DTSC) maintains a database of information on properties in California where hazardous substances have been released, or where the potential for such release exists. Two properties reported to be in the UCSP Subdistricts Area appear on the State Sites list. One property is located along I-5 roughly between F and G Streets, and the second is located along Broadway between K and L Streets (see Figure 5.13-7).

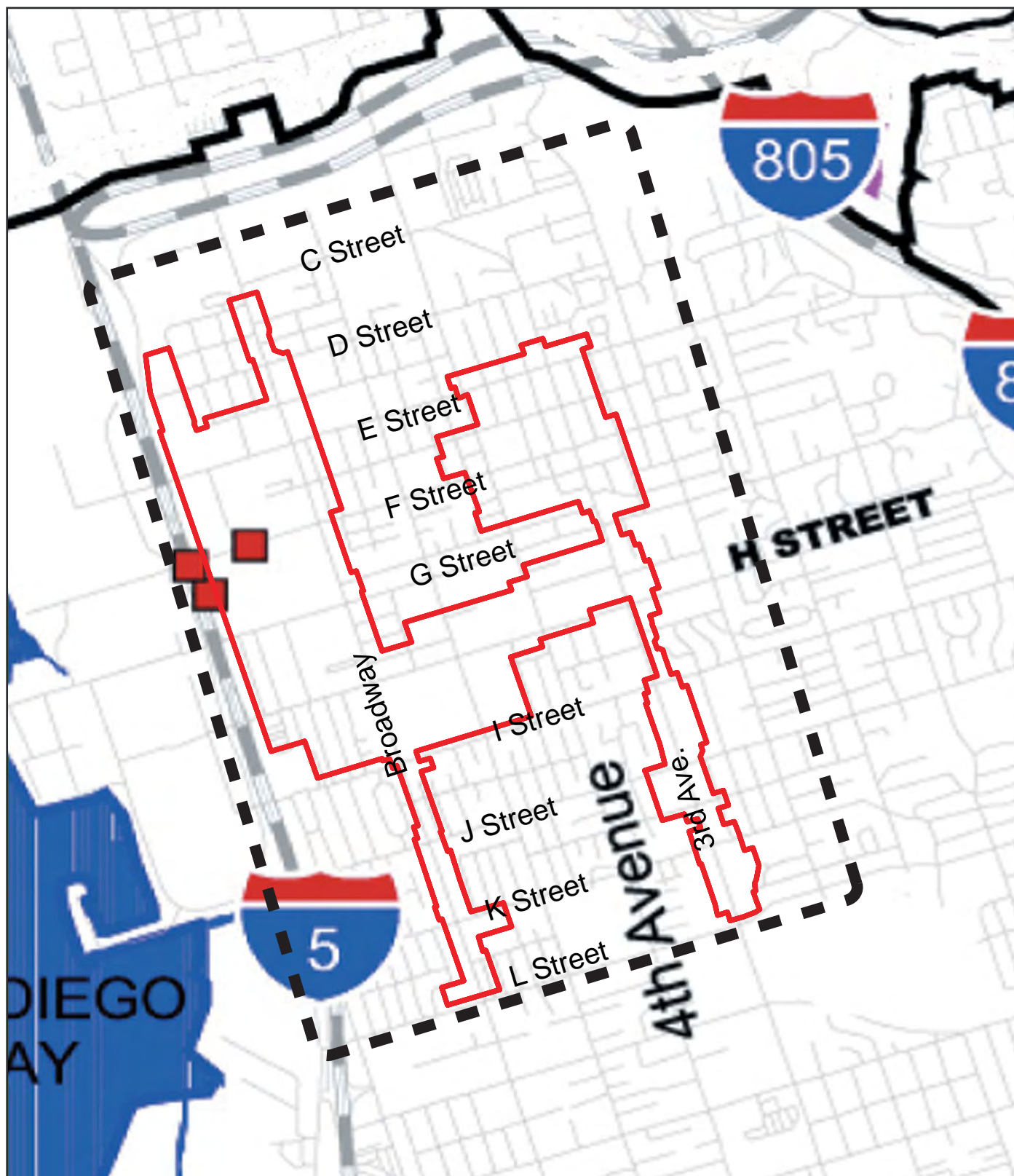
#### **g. Multiple Agency, State of California Solid Waste Landfill (SWL) List**

As legislated under the Solid Waste Management and Resource Recovery Act of 1972, the California Integrated Waste Management Board (CIWMB) maintains the Solid Waste Information System (SWIS) that lists active solid waste disposal sites, inactive or closed solid waste disposal sites, and transfer facilities. Three properties reported to be located in the Subdistricts Area appear on the Solid Waste Landfill (SWL) list of sites of potential environmental concern. A fourth site is mapped immediately adjacent to the northwest boundary of the Subdistricts Area and a fifth is in fairly close proximity to the southwest. Figure 5.13-8 shows the approximate locations of these four facilities.

#### **h. Multiple Agency, Underground Storage Tank (UST) List**

According to the environmental database search, approximately 36 registered underground storage tank (UST) facilities are located within the UCSP area. The UST list consists of properties that have registered tanks, and are not necessarily indicative of sites where a release of hazardous substances has occurred. The properties listed in this database that have also experienced an unauthorized release of hazardous substances are shown

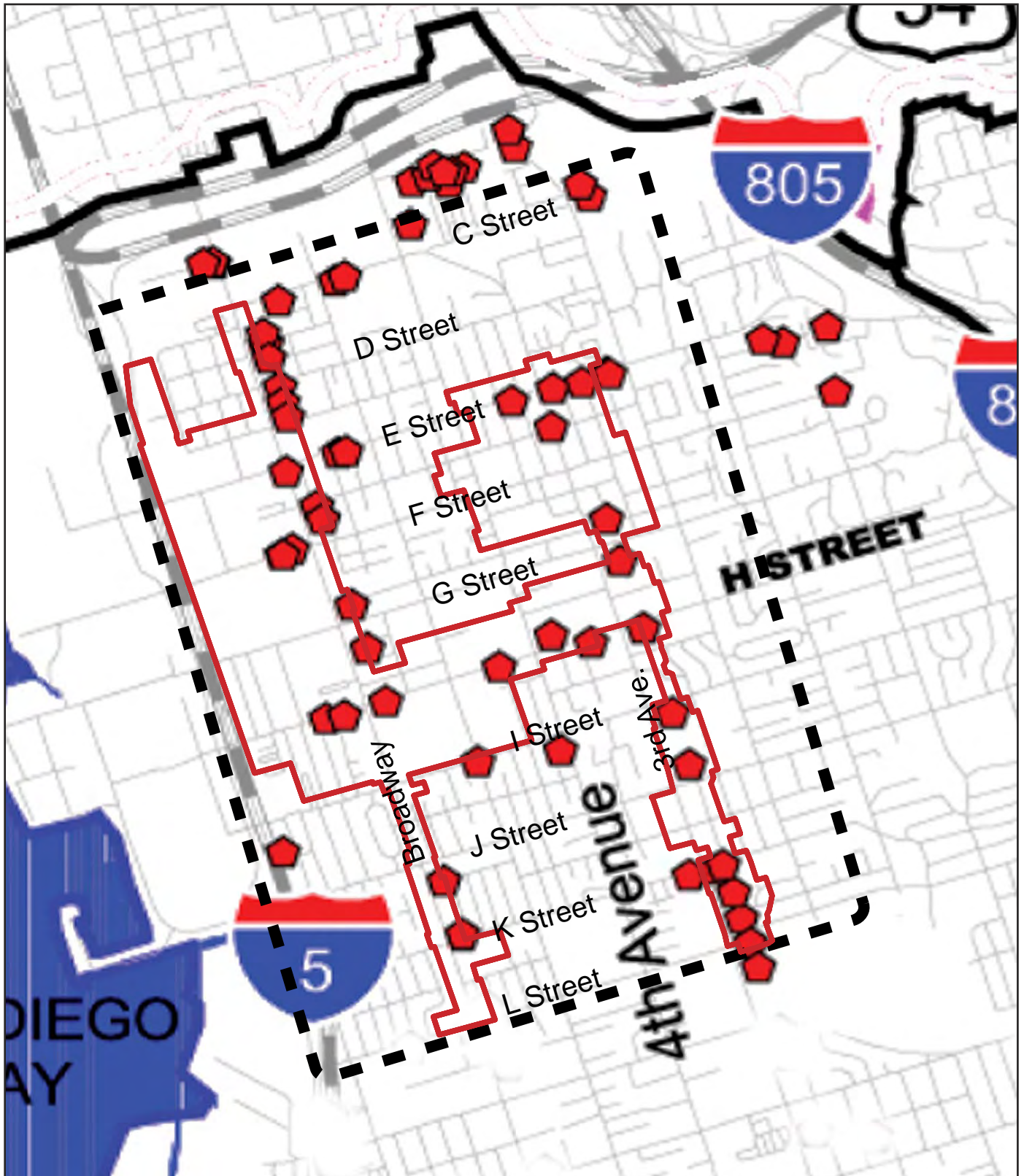




- Spills Site of Potential Environmental Concern
- - - USCP Study Area
- USCP Subdistricts Area

FIGURE 5.13-5

State Water Resources Control Board (SWRCB)  
Spills, Leaks, Investigation, and Cleanups (SLIC)  
(SPILLS) Lists Sites of Potential Environmental Concern

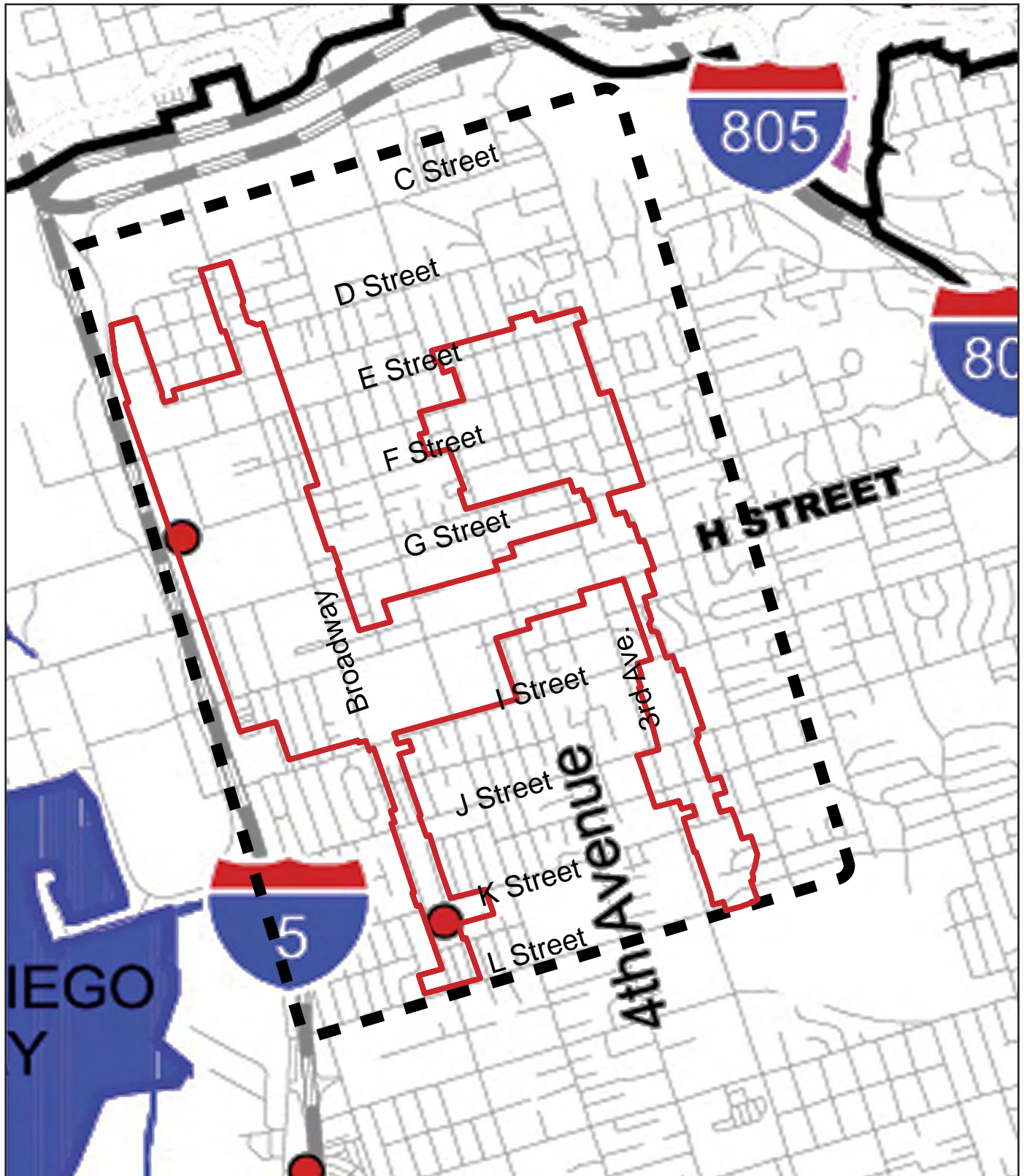


- RCRA CORRACTS \* Site of Potential Environmental Concern
- USCP Study Area
- USCP Subdistricts Area

FIGURE 5.13-6

United States Environmental Protection Agency,  
Resource Conservation and Reclamation Act (RCRA)  
(Corrective Action) CORRACTS List Sites of  
Potential Environmental Concern

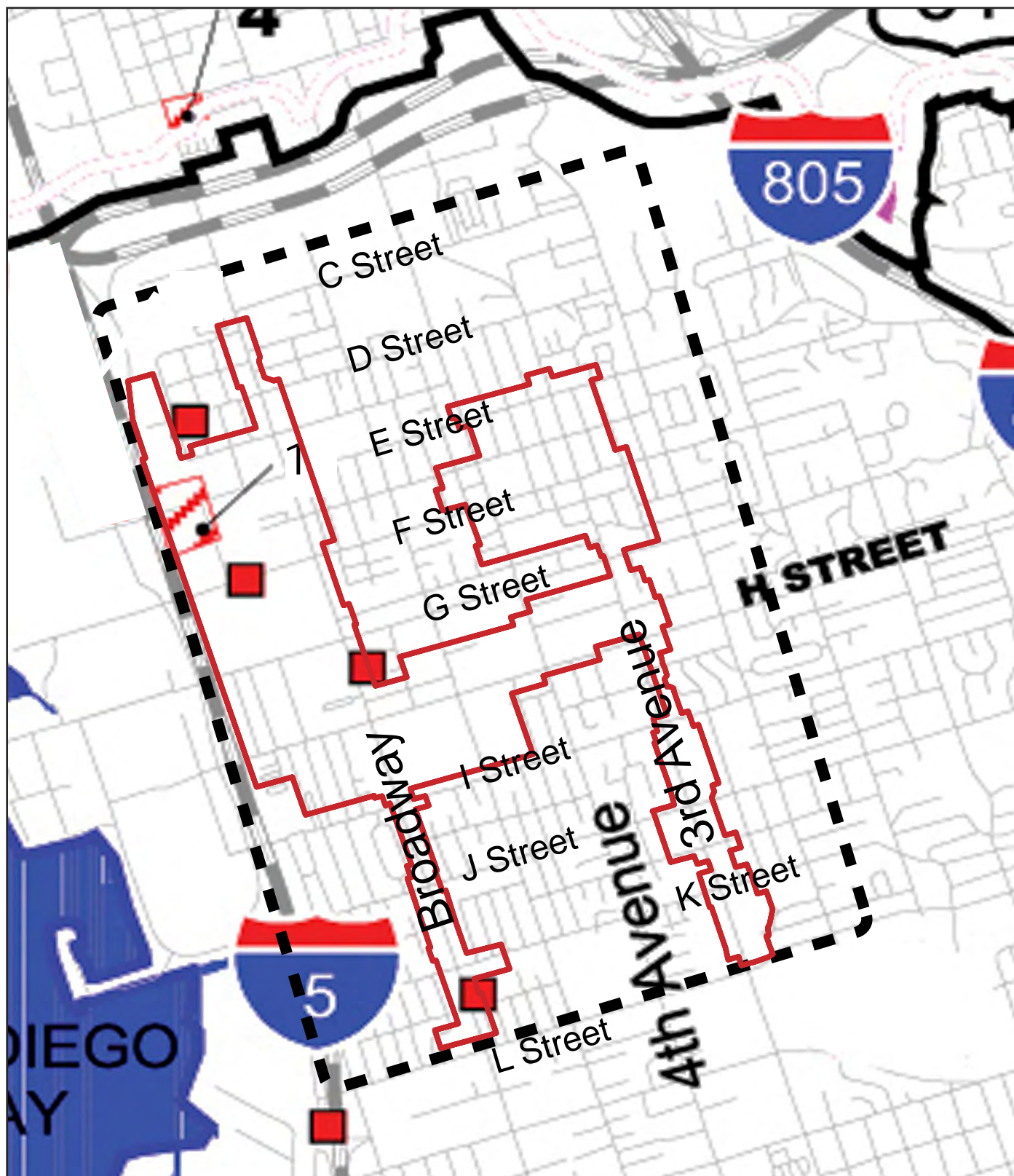




- State Site of Potential Environmental Concern
- - - USCP Study Area
- USCP Subdistricts Area

FIGURE 5.13-7  
California Department of Toxic Substances Control (DTSC) List  
Sites of Potential Environmental Concern





1) Former Bayscene Landfill

- Landfill Site of Potential Environmental Concern as Identified by an Environmental Regulatory Agency
- Landfill Site of Potential Environmental Concern as Identified by an Environmental Database Search

--- USCP Study Area

— USCP Subdistricts Area

FIGURE 5.13-8

Multiple Agency, State of California Solid Waste Landfill (SWL)  
List Sites of Potential Environmental Concern

on Figure 5.13-2 as LUST cases. The remaining properties that appear on the UST list (i.e., properties that do not appear on any list that reports unauthorized releases of hazardous substances) are not shown on a figure, as there is a low likelihood that these properties present an environmental threat to the subject site at the present time (Ninyo & Moore 2003).

### **5.13.1.2 Area Reconnaissance**

The 2003 Ninyo and Moore reconnaissance involved a “windshield” survey of properties of significant potential environmental concern (e.g., large-quantity generators; treatment, storage, and disposal facilities; inactive landfills) identified during the regulatory agency database review and through interviews with regulatory agency representatives. Site reconnaissance activities were performed from public rights-of-way. Exteriors of individual properties were surveyed only to the extent that access was available to the general public. Interiors of individual facilities were not accessed.

#### **a. Incompatible Land Use**

One area of possible incompatible land use in the vicinity of operational and closed waste disposal facilities was identified from the reconnaissance. This property is presently occupied by Bayscene Mobile Home Park at 100 Woodlawn Avenue. According to information obtained through the local enforcement agency (LEA), this mobile home park may be located on land that was used as a disposal area for burn ash excavated and hauled from a residential development project in Coronado. In addition, the properties adjacent to the mobile home park on the north, south, and east are occupied by residences, which may also represent an incompatible land use. No additional obvious incompatible land uses were observed in the immediate vicinity of the sites visited.

#### **b. Former Bayscene Landfill**

This former landfill reportedly is located in the vicinity of the western terminus of Flower Street, between Woodlawn Avenue to the east, I-5 to the west, and D Street to the north. Currently, residences border the property to the north, south, and east. A short, steep slope borders the property on the west, leading to the trolley tracks below. Burn ash, reportedly from land on which the Coronado Cays project subsequently was constructed, was deposited at this location. (Reportedly, during construction of the Coronado Cays residential development project, burn ash was excavated and hauled to various locations throughout San Diego County.)

Soil and groundwater sampling has not been performed to date at the Bayscene Landfill. However, lead and other metals are expected to be present in this area at elevated concentrations. In addition, based on previous burn dump investigations, low levels of total recoverable petroleum hydrocarbons or low to no detectable levels of semi-volatile

organic compounds (SVOCs), PCBs, dioxins, and furans may also be present in burn ash. Bayscene Mobile Home Park, located at 100 Woodlawn Avenue, presently occupies the property.

### **c. Hazardous Building Materials**

The UCSP Study Area and Subdistricts Area contain numerous older residences and other structures. If a structure was built prior to 1960, it is highly likely that there is lead paint present on selected surfaces. Asbestos is also likely to occur in boiler coverings and elbows, vinyl asbestos floor tile, roofing materials, cooling tower panels. Lead and asbestos are fairly safe if left undisturbed, however disruption of lead-painted surfaces or asbestos-laden products can potentially release hazardous materials that can be ingested or inhaled through dust and friable fibers.

### **d. Wildfire Hazards**

The potential wildfire risk zones are areas that have steep slopes, limited precipitation, and plenty of available fuel. The Urban Core area is not located in a designated wildfire hazard area as defined by the California Department of Forestry and Fire Prevention.

## **5.13.1.3 Regulations and Legislation**

### **a. Local Regulations/ Chula Vista General Plan Update**

Sections 3.4.3 and 3.4.4 of the Chula Vista General Plan Update (GPU) address the siting and managing of facilities that use, store, and handle hazardous materials and waste.

The Environmental Element of the GPU contains the following policies:

#### **Policies**

- EE 19.1: Special design features and/or on-site emergency services may be required where deemed necessary to facilitate the adequate handling of hazardous materials accidents.
- EE 20.2: Through the environmental review of proposed developments in accordance with the California Environmental Quality Act, the City shall ensure that significant and potentially significant adverse effects from facilities using, storing, and handling hazardous materials and waste to existing and planned surrounding land uses will be avoided.
- EE 20.3: Prior to the renewal of business licenses for businesses involving hazardous materials and/or generating hazardous waste, the city shall continue to require licensees to prepare and submit an acceptable

Business Plan and Risk Management Prevention Program to the County Department of Environmental Health, as applicable, and to obtain all other necessary licenses and permits.

## **b. Regional, State, and Federal Regulations**

Numerous federal, state, and local laws and regulations regarding hazardous substances have been developed with the intent of protecting public health, the environment, surface water, and groundwater resources. Over the years the laws and regulations have evolved to deal with different aspects of the handling, treatment, storage and disposal of hazardous substances. Relevant laws and regulations include:

- 1972 Federal Water Pollution Control Act (also referenced as the Clean Water Act [CWA]). This act established a federal framework for the regulation of water quality.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, also known as “Superfund,” and the Superfund Amendments and Reauthorization Act (SARA) of 1986 (amended CERCLA, SARA Title III). CERCLA, SARA Title III provide a federal framework for setting priorities for cleanup of hazardous substances releases to air, water, and land. This framework provides for the regulation of the cleanup process, cost recovery, response planning, and communication standards.
- Federal Resource Conservation and Recovery Act (RCRA) of 1976. This act established the authority of the United States Environmental Protection Agency (U.S. EPA) to develop regulations to track and control hazardous substances from their production, through their use, to their disposal.
- Title 40 Code of Federal Regulations (CFR), Part 257, establishes criteria for the classification of solid waste disposal facilities and practices (Sections 257.1 to 257.30). The U.S. EPA has the authority under RCRA to authorize states to implement RCRA, and California is a RCRA authorized state.
- Title 40 California Code of Regulations (CCR), Part 290 establishes technical standards and corrective action requirements for owners and operators of Underground Storage Tanks (USTs) under RCRA.
- Porter-Cologne Water Quality Act (California Water Code, Section 13000 et seq.) established the authority of the State Water Resources Control Board (SWRCB), and provided the RWQCB with the primary responsibility of the control of water quality in the state of California.
- California Health and Safety Code establishes legal requirements for the control and management of hazardous wastes, aboveground storage tanks (ASTs), and USTs.

- CCR Title 22, Division 4.5 provides state requirements for the classification, management, and cleanup of hazardous waste sites.
- CCR Title 27, Division 3, Chapter 15 establishes minimum requirements for proper waste management treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities.
- CCR Title 23, Division 3, Chapter 16 establishes requirements regarding the management of USTs for the protection of waters of the state from discharges of hazardous substances. Furthermore, all owners and operators of underground storage tanks containing hazardous substances as defined in Section 25316 of the California Health and Safety Code are required to obtain a permit from the San Diego County DEH, Hazardous Materials Management Unit (HMMU). Secondary containment and leak detection and monitoring system requirements must be met before permit issuance.
- The California Division of Occupational Safety and Health Administration (OSHA) and federal OSHA define and enforce worker safety standards. Section 29 Code of Regulation (CFR) Part 1910.120 and Title 8 California Code of regulations, Section 5192 (et. seq) require A Site Health and Safety Plan for workers within certain defined zones.
- Asbestos containing materials are regulated as a hazardous air pollutant under the Clean Air Act and by Cal-OSHA. The San Diego Air Pollution Control District, through the authority of CARB and CalEPA, are primarily responsible for enforcing asbestos regulations.
- Water Quality Control Plan ("Basin Plan") for the San Diego region establishes policies and requirements for the protection of groundwater and surface water quality in the region. The Basin Plan also summarizes drinking water standards as specified in the California Department of Health Services, the California Inland Surface Waters Plan (SWRCB 1991), and Title 40 CFR Part 131, which establishes federal water quality standards under the CWA.

Table 5.13-1 below provides a matrix of regulatory agency responsibility.

**TABLE 5.13-1  
MATRIX OF REGULATORY AGENCY RESPONSIBILITY**

Law	Purpose	Federal	State	County	City
CAA	Restore Air Quality	U.S. EPA	Air Resources Board (ARB)	Air Pollution Control District (APCD)	--
CWA	Restore Water Quality	U.S. EPA	Water Resources Control Board (WRCB)	Regional Water Quality Control Board (RWQCB)	--
RCRA	Hazardous Waste Regulation	U.S. EPA	Department of Toxic Substances Control (DTSC)	Department of Environmental Health (DEH)	Fire Department
CERCLA	Clean up of Hazardous Waste Sites	U.S. EPA	DTSC	--	
SARA III	Community Right-to-Know	U.S. EPA	Office of Emergency Services (OES)	Regional OES	

**NOTES:**

CAA = Clean Air Act

CWA = Clean Water Act, including the State Water Code (e.g., Porter-Cologne Act)

RCRA = Resource Conservation and Recovery Act

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act "Superfund"

SARA III = Superfund Amendments and Reauthorization Act, Title III

Portions of the State Health &amp; Safety Code govern various actions of the ARB, WRCB, and DTSC.

### 5.13.2 Criteria for Determination of Significance

The proposed UCSP would result in a significant hazards/risk of upset impact if it would:

- Criterion 1: Create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials;
- Criterion 2: Place potential emitters of hazardous or acutely hazardous materials or substances in close proximity to sensitive receivers or be located in close proximity to a site which is included on a list of hazardous materials site pursuant to Government Code Section 65962.5; or
- Criterion 3: Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

### 5.13.3 Impacts

#### 5.13.3.1 Hazardous Materials Transport, Use, Disposal or Release

- **Criterion 1: Create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials.**

Hazardous materials which occur within the UCSP area pose significant public health and safety risks during construction or long-term use of proposed development if they occur in concentrations that exceed state and/or federal standards. Exposure to hazardous materials can occur through contact with contaminated soil or groundwater through ingestion, skin contact or the inhalation of vapors or dust. An approximate total of 103 sites that are of potential hazardous concern have been identified within the Subdistricts Area and surrounding land uses.

During construction, workers may come in contact with hazardous or potentially hazardous materials during demolition of buildings or excavation activities. Demolition of buildings may expose workers to asbestos and lead paint as well as chemicals stored in or leaking from underground storage tanks (UST). Inhalation of friable asbestos fibers can cause lung cancer and asbestosis. Similarly, inhalation of lead-containing dust may cause acute or chronic toxicity. Exposure to persons other than construction workers would be minimized by the exclusion of non-authorized personnel in areas determined to contain hazardous or potentially hazardous materials.

Grading and excavation would disturb soils and possibly cause contaminants to become airborne. Excavation below the groundwater table or dewatering could also bring construction workers in contact with contaminants through skin contact, ingestion or inhalation. Construction workers could potentially encounter hazardous materials in buried drums or underground storage tanks.

State and federally-mandated property-specific Phase II Environmental Assessments are required prior to development and would identify areas most likely to contain such materials prior to construction, enabling appropriate actions to be taken to control risk exposure. The first phase of construction of an individual redevelopment activity would involve carrying out remedial measures necessary to remove or clean contaminated buildings, soil or groundwater, as necessary. As with excavation, remedial measures which disturb contaminated buildings, soil or groundwater have the potential to expose construction workers to hazardous material via contact, ingestion or inhalation. Additionally, trucks transporting materials offsite could potentially impact residents, employees, and motorists on the route traveled. All remediation activities are anticipated

to take place prior to construction. However, it is possible that additional contamination may be encountered during construction.

Although it is not likely, it is possible that after construction is complete, residual soil and groundwater contaminants could pose a health and safety risk to UCSP residents, employees, and visitors. The risk of exposure would be greatly reduced as the chances of encountering groundwater would be low and the majority of the soil would be covered by structures or pavement.

In addition to risks posed by pre-existing hazardous materials, potential risks are associated with the individual redevelopment activities themselves. Long-term implementation of the proposed land uses identified in the UCSP has the potential to result in the routine transport, use, disposal, or accidental release of hazardous materials. The UCSP does not propose specific land uses that are anticipated to transport, use, dispose, or release hazardous materials. However, herbicides and fertilizers associated with the landscaping of a redevelopment activity have the potential to pose a health risk if not properly managed. Similarly, proposed retail, restaurant, office and hotel uses may also involve the use or storage of materials which may be considered hazardous if not properly managed. These risks would be managed to a level below significant through the implementation of existing mandatory federal, state and local regulations described below.

#### **a. Mandatory Regulations and Remedial Measures**

The potential health risks during and after construction of individual redevelopment activities located on a site with hazardous materials remediation needs would be reduced through the mandatory controls imposed by State and Federal regulations described in 5.13.1.1.b. In accordance with these laws and regulations, all hazardous materials/wastes and petroleum products will have to be removed and remediated prior to, or during construction, to the standards set by the various federal, state, and local regulations. The type and extent of the remediation activities would be tailored to the individual properties based on the amount of hazardous materials/wastes and petroleum products identified by subsequent site-specific Phase I and II Environmental Assessments, and the planned land uses to be constructed on the site.

Although specific remediation needs or subsequent remediation activities have not been determined for future individual redevelopment activities within the UCSP Subdistricts Area, proven soil remediation technologies are described in the following paragraphs. Not all remediation activities would be conducted at all sites. Both soils containing no measurable contaminants and soils containing contaminants at concentrations below the remediation goals and not classified as hazardous by Title 22 of the California Code of Regulations may be used as backfill on future activity sites.



**No Action**

Based on the nature, concentration, and distribution of the contaminant, distance to potential receptors (including groundwater and San Diego Bay), and the intended site land use, the DEH may not require any soil or groundwater remediation activities to occur.

**Soil Remediation**

If the contaminants in soil are judged to pose a potential unacceptable risk to human health or the environment, the DEH will likely require remedial activities to take place to reduce the potential risk. Typically, the soil is remediated either in place (*in situ*), or after it has been excavated (*ex situ*). The following is a summary of the methods that may be used to treat soil in the UCSP area.

***In situ Methods***

In many cases, it is possible to remediate soil without having to excavate the soil. Although there are several *in situ* methods available, the two most common ones are vapor extraction and air sparging. Natural attenuation and free product removal are other effective *in situ* methods.

The vapor extraction method involves the installation of vapor extraction wells which are connected to a vacuum source. Contaminant-laden vapors are removed from the soil and treated prior to being discharged to the atmosphere. Typically, the contaminant-laden vapors are treated using activated carbon or oxidation systems. This method typically works best to treat volatile compounds such as gasoline and solvents in highly permeable soil.

Air sparging is typically used in conjunction with vapor extraction. Air sparging involves the injection of compressed air into the soil. The compressed air assists in the biological and chemical degradation of contaminants in the soil. This method typically works best to treat volatile compounds such as gasoline and solvents in highly permeable soil.

Natural attenuation allows contaminated soils or groundwater to remain in place when the DEH concurs that a contaminant plume is stable (e.g., not migrating) and the concentrations of the contaminant have been shown to be decreasing over time. In most cases, the method is used for residual contamination remaining in the subsurface after other types of remediation activities have been performed to remove the source of contamination, and usually requires long periods of monitoring activities to establish the stability and decreasing trends of the contaminant plume. This method is typically used for fuels, oils, and other organic chemicals.

The removal of phase-separated product (known as free product removal) may be accomplished by vapor extraction, as previously discussed, or by either passive or active

skimmers, or by hand-bailing. These methods are most effective with light non-aqueous phase liquids (LNAPLs) such as petroleum products (oils, fuels, and petroleum-based solvents such as mineral spirits and Stoddard solvent).

### ***Ex-situ Methods***

Based on the contaminant type and the permeability of the soil, it may not be possible to treat soil in place. Therefore, the soil is excavated and treated. The excavated soil can be treated onsite or transported to an offsite treatment facility. If the soil is treated onsite, it can either be used onsite, or disposed at an offsite location.

The ex-site vapor extraction method is similar to the vapor extraction previously described, except that it is conducted after the soil is excavated. This method can be used when the permeability of the soil is too low to be feasible to conduct in situ vapor extraction. In this method the soil is excavated and piled onsite. Piping is placed in the soil stockpiles for the vapor extraction. This method typically works best to treat volatile compounds such as gasoline and solvents.

Bioremediation involves the addition of nutrients, water, oxygen, and possibly bacteria to excavated soil. The nutrients, water, and oxygen will increase the indigenous or added bacteria populations. The bacteria use the selected contaminants as a food source. Bioremediation has been proven successful in the treatment of many contaminants including fuels, oils, and other organic chemicals.

Fixation involves the addition of chemicals (cement is typically used) to the excavated soil to reduce the potential for the contaminant to be mobile. This method is typically used to treat inorganic compounds such as metals.

Thermal desorption is a method that involves heating the excavated soil to cause the contaminant to volatilize and migrate from the soil as a vapor. The vapor is then treated, using activated carbon or by a catalytic oxidation unit, and discharged to the atmosphere. This method is typically used to treat organic compounds such as fuels, oils, and solvents. A portable unit is placed adjacent to or on the site where the contaminated soils are being excavated or stockpiled. Alternatively, the contaminated soils can be excavated and transported to an offsite facility for treatment. The soil is then transported back to the site for use as backfill or transported elsewhere for use or disposal.

Off-site incineration involves heating the excavated soil to cause the contaminant to volatilize and oxidize. The exhaust is treated by conventional methods (e.g., air scrubbers, catalytic oxidation units, etc.) prior to being released into the atmosphere. This method is typically used to treat organic compounds such as fuels, oils, and solvents.

Off-site bioremediation/soil washing is a process similar to onsite bioremediation described above except that the excavated soil is transported to an offsite facility where nutrients, water, oxygen, and possibly bacteria are added to the excavated soil. The nutrients, water, and oxygen will increase either the indigenous or added bacteria populations. The bacteria are able to use selected contaminants as a food source. Bioremediation has been proven successful in treating many contaminants including fuels, oils, and other organic chemicals.

### 5.13.3.2 Sensitive Receivers

- **Criterion 2: Place potential hazardous emitters or materials in close proximity to sensitive receivers or be located in close proximity to a hazardous materials site.**

Due to the nature of historic and current land uses located throughout the UCSP area, there is a high potential for encountering hazardous materials sites identified on registers compiled pursuant to Government Code Section 65962.5. However, significant impacts to human health and the environment would be avoided through compliance with mandatory federal, state, and local regulations described previously.

State law requires the mapping of “general areas” within which hazardous waste facilities might be established. Proposed hazardous waste facilities will be considered only if they are within the industrial zoned general areas. Policy EE 19.1 of the General Plan Update addresses the siting of potentially hazardous materials and provides that development proposals for hazardous waste storage, collection, treatment, disposal, and transfer facilities will only be considered if they are located within a designated “general area” as shown in Figure 9 of the City’s General Plan Update and meet specific siting, design and operating criteria established by the Chula Vista Zoning Code and pursuant to the established City siting criteria guidelines. The proposed UCSP does not contain any “general areas” or propose any industrial uses, and does not propose uses that would place potential emitters of hazardous or acutely hazardous materials or substances in close proximity to sensitive receivers. Therefore, no significant impact would result.

### 5.13.3.3 Emergency Response

- **Criterion 3: Impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

There are no land uses proposed for the UCSP that would interfere with or impair implementation of an adopted emergency response or evacuation plan. In addition, the land uses identified in the proposed UCSP would not physically interfere with any known adopted emergency plans. Therefore, no significant impact would result.

As redevelopment proceeds in the UCSP Subdistricts Area, urbanization would intensify. As intensification increases, the potential for impacts of man-made or natural disaster could also increase. The ongoing implementation and updating of the DEH Emergency Response Management Program and Chula Vista Fire Code would assure adequate response to unforeseeable emergencies within the UCSP.

#### **5.13.4 Summary of Significance Prior to Mitigation**

The UCSP area contains numerous known and listed hazardous sites of potential environmental concern. Approximately 103 sites of potential environmental concern were identified through recent database research. Future development consistent with the proposed UCSP may result in significant impacts if such development allows greater contact between humans and hazards.

#### **5.13.5 Mitigation Measures**

The following measures will mitigate impacts resulting from the adoption of the UCSP to below a level of significance.

##### **Mitigation Measure**

- 5.13-1 Prior to approval of subsequent individual development projects, any project plans that propose land uses which use, transport, store, and dispose of hazardous materials shall be conducted in compliance with the relevant regulations of federal, state, and local agencies, including the EPA, California Department of Health Services (DHS), and California Department of Transportation.
- 5.13-2 A risk assessment shall be performed at all sites within the study area where contamination has been identified or is discovered during future construction activities, and at which soil is to be disturbed, to address risks posed by any residual contamination, and to establish appropriate mitigation measures (e.g., natural attenuation, active remediation, engineering controls) that would be protective of human health and the environment. All assessment and remediation activities shall be conducted in accordance with a Work Plan that is approved by the regulatory agency having oversight of the activities.
- 5.13-3 A hazardous building materials survey should be performed at buildings in the study area prior to demolition or renovation activities. This type of survey typically addresses lead-based paint (LBP), asbestos-containing materials (ACMs), PCBs in electrical equipment, mercury switches, and heating/cooling systems. Such a survey should be conducted under the direct supervision of a State of California Certified Asbestos Consultant and EPA lead assessor. Prior to demolition or renovation work that would disturb identified ACMs,

LBP, or other hazardous materials, a licensed abatement removal contractor should remove and properly dispose of the hazardous material(s) in accordance with applicable local, state and federal regulations. A California certified consultant should prepare a bid specification document, and perform abatement project planning, site and air monitoring, oversight activities, and reporting activities.

### **5.13.6 Summary of Significance After Mitigation**

With the implementation of Hazards/Risk of Upset Mitigation Measures 5.13-1, 5.13-2 and 5.13-3, significant impacts resulting from the approval of the UCSP will be mitigated to less than significant.